

AMENDMENTS TO THE CLAIMS

Please **CANCEL** claims 1-15 as shown below.

Please **ADD** claim 16-18 as shown below.

The following is a complete list of all claims in this application.

1-15. (cancelled)

16. (new) An thermal protection system, comprising:

an insulating core comprising carbon foam having a thermal conductivity below about 1 W/m °K.

17. (new) The thermal protection system of claim 16, wherein the carbon foam is a coal-based cellular foam.

18. (new) The thermal protection system of claim 16, wherein the carbon foam has a density ranging from about 0.1 to about 0.8 g/cm³.